

IN THE CLAIMS:

- Sub B1* of:
1. ~~A peptide having an amino acid sequence selected from the group consisting~~
- (a) ~~H H A R L; (portion of SEQ ID NO: 2, residues 291-295)~~
 - (b) ~~H A R L; (portion of SEQ ID NO: 2, residues 292-295)~~
 - (c) ~~H A R L I; (portion of SEQ ID NO: 2, residues 292-296)~~
 - (d) ~~H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)~~
 - (e) ~~H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)~~
 - (f) ~~A R L I L; (portion of SEQ ID NO: 2, residues 47-51)~~
 - (g) ~~H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)~~
 - (h) ~~T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)~~
 - (i) ~~A R L I; (portion of SEQ ID NO: 2, residues 47-50)~~
 - (j) ~~A R L;~~
 - (k) ~~H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)~~
 - (l) ~~A R L C L; (portion of SEQ ID NO: 2, residues 92-96)~~
 - (m) ~~A R C L; (SEQ ID NO: 12)~~
 - (n) ~~M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)~~
 - (o) ~~F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)~~
 - (p) ~~F A R L I; (portion of SEQ ID NO: 2, residues 264-268)~~
 - (q) ~~F A R L; (portion of SEQ ID NO: 2, residues 264-267)~~
 - (r) ~~H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)~~
 - (s) ~~A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs~~
- a6*
- thereof.

3. A peptide having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively in order of appearance)

- (a) L H A R L C L A N F C G R N R V;
 - (b) L A R L C L A N F C G N N N V;
 - (c) C A R Y R T G H H A R L M;
 - (d) H H A R L P L A N F C G;
 - (e) R T G H H A R L C * L A N F C;
- a7*

- a7
cont
- (f) C E S A R Y R T G H H A R L C *;
 - (g) D N T H H A R L I L;
 - (h) S H H A R L I L; and homologs thereof.

5. A peptide having the amino acid sequence A R L I (portion of SEQ ID NO: 2, residues 47-50), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

sub 2
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6. A peptide having the amino acid sequence H A R L (portion of SEQ ID NO: 2, residues 292-295), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

7. A peptide having the amino acid sequence F A R L (portion of SEQ ID NO: 2, residues 264-267), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

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9. A peptide having the amino acid sequence A R L C (portion of SEQ ID NO: 2, residues 92-95), and comprising at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

11. A nucleic acid encoding an amino acid sequence selected from the group consisting of:

- a10
- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
 - (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
 - (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
 - (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
 - (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
 - (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
 - (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
 - (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
 - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
 - (j) A R L;
 - (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
 - (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
 - (m) A R C L; (SEQ ID NO: 12)

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Cont
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
 - (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
 - (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
 - (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
 - (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
 - (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs of such amino acid sequences.
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13. A nucleic acid encoding an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)

- a¹¹
- (a) L H A R L C L A N F C G R N R V;
 - (b) L A R L C L A N F C G N N N V;
 - (c) C A R Y R T G H H A R L M;
 - (d) H H A R L P L A N F C G;
 - (e) R T G H H A R L C * L A N F C;
 - (f) C E S A R Y R T G H H A R L C *;
 - (g) D N T H H A R L I L;
 - (h) S H H A R L I L; and homologs thereof.
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20. An antibody which specifically recognizes a peptide sequence having an amino acid sequence selected from the group consisting of:

- a¹²
- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
 - (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
 - (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
 - (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
 - (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
 - (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
 - (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
 - (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
 - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
 - (j) A R L;
 - (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
 - (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
 - (m) A R C L; (SEQ ID NO: 12)

- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs

thereof.

21. An antibody which specifically recognizes a peptide sequence having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively in order of appearance)

- (a) L H A R L C L A N F C G R N R V;
- (b) L A R L C L A N F C G N N N V;
- (c) C A R Y R T G H H A R L M;
- (d) H H A R L P L A N F C G;
- (e) R T G H H A R L C * L A N F C;
- (f) C E S A R Y R T G H H A R L C *;
- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.

22. An antibody which specifically recognizes a peptide sequence having an amino acid sequence selected from the group consisting of:

- (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
- (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (d) A R L; and
- (e) A R L C, (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

23. A mimetic of a peptide having an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)

- Sub B3*
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
 - (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
 - (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
 - (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
 - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
 - (j) A R L
 - (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
 - (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
 - (m) A R C L; (SEQ ID NO: 12)
 - (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
 - (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
 - (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
 - (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
 - (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
 - (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences.

24. A mimetic of a peptide having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)

- Q12 Cont*
- (a) L H A R L C L A N F C G R N R V;
 - (b) L A R L C L A N F C G N N N V;
 - (c) C A R Y R T G H H A R L M;
 - (d) H H A R L P L A N F C G;
 - (e) R T G H H A R L C * L A N F C;
 - (f) C E S A R Y R T G H H A R L C *;
 - (g) D N T H H A R L I L;
 - (h) S H H A R L I L; and homologs thereof.

Sub B4 25. A mimetic of a peptide having an amino acid sequence selected from the group consisting of:

- (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
- (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (d) A R L, and

(e) ~~A R L C~~; (SEQ ID NO: 12)

wherein the NTP peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or ~~5'~~ end of the peptide.

26. A method for purifying NTP from a biological sample comprising:

(1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences;

- (2) isolating the resulting Harlil peptide/NTP conjugates; and
- (3) separating NTP from the one or more Harlil peptides to obtain purified NTP.

27. A method for purifying NTP from a biological sample comprising:

(1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)

- (a) L H A R L C L A N F C G R N R V;

- (b) L A R L C L A N F C G N N N V;
 - (c) C A R Y R T G H H A R L M;
 - (d) H H A R L P L A N F C G;
 - (e) R T G H H A R L C * L A N F C;
 - (f) C E S A R Y R T G H H A R L C *;
 - (g) D N T H H A R L I L;
 - (h) S H H A R L I L; and homologs thereof;
- (2) isolating the resulting Harlil peptide/NTP conjugates; and
 - (3) separating NTP from the one or more Harlil peptides to obtain purified NTP.
28. A method for purifying NTP from a biological sample comprising:
- (a) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:
 - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
 - (ii) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
 - (iii) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
 - (iv) A R L; and
 - (v) A R L C; (SEQ ID NO: 12)
 wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide;
 - (b) isolating the resulting Harlil peptide/NTP conjugates; and
 - (c) separating NTP from the one or more Harlil peptides to obtain purified NTP.
29. A diagnostic test for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:
- (1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:
 - (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
 - (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
 - (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
 - (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
 - (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
 - (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
 - (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
 - (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
 - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)

- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences;

- (2) determining the amount of NTP present in the sample; and
- (3) determining whether the amount of NTP present in the sample is above a threshold amount indicative of the presence of Alzheimer's Disease or other neurodegenerative disorder.

30. A diagnostic test for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:

- (1) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)
 - (a) L H A R L C L A N F C G R N R V;
 - (b) L A R L C L A N F C G N N N V;
 - (c) C A R Y R T G H H A R L M;
 - (d) H H A R L P L A N F C G;
 - (e) R T G H H A R L C * L A N F C;
 - (f) C E S A R Y R T G H H A R L C *;
 - (g) D N T H H A R L I L;
 - (h) S H H A R L I L; and homologs thereof;
- (2) determining the amount of NTP present in the sample; and
- (3) determining whether the amount of NTP present in the sample is above a threshold amount indicative of the presence of Alzheimer's Disease or other neurodegenerative disorder.

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Cont.

31. A diagnostic test for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:

(a) contacting a biological sample with one or more peptides having an amino acid sequence selected from the group consisting of:

- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (ii) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
- (iii) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (iv) A R L; and
- (v) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide;

- (b) determining the amount of NTP present in the sample; and
- (c) determining whether the amount of NTP present in the sample is above a threshold amount indicative of the presence of Alzheimer's Disease or other neurodegenerative disorder.

32. A diagnostic kit for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:

(1) one or more peptides having an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 90-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of

SEQ ID NO: 2, residues 263-269)

- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)

- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences; and

- (2) suitable reagents.

33. A diagnostic kit for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:

- (1) one or more peptides having an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)
 - (a) L H A R L C L A N F C G R N R V;
 - (b) L A R L C L A N F C G N N N V;
 - (c) C A R Y R T G H H A R L M;
 - (d) H H A R L P L A N F C G;
 - (e) R T G H H A R L C * L A N F C;
 - (f) C E S A R Y R T G H H A R L C *;
 - (g) D N T H H A R L I L;
 - (h) S H H A R L I L; and homologs thereof; and
- (2) suitable reagents.

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Cont 34. A diagnostic kit for determining the presence of Alzheimer's Disease or other neurodegenerative disorder comprising:

- (a) one or more peptides having an amino acid sequence selected from the group consisting of:
 - (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
 - (ii) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
 - (iii) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
 - (iv) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
 - (v) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide; and

- (b) suitable reagents.

35. A method of using a peptide as an analogue for NTP in a therapeutic or diagnostic assay, comprising replacing NTP with the peptide in such an assay, wherein the peptide has an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences.

36. A method of using a peptide as an analogue for NTP in a therapeutic or diagnostic assay, comprising replacing NTP with the peptide in such an assay, wherein the peptide has an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)

- (a) L H A R L C L A N F C G R N R V;
- (b) L A R L C L A N F C G N N N V;
- (c) C A R Y R T G H H A R L M;
- (d) H H A R L P L A N F C G;
- (e) R T G H H A R L C * L A N F C;
- (f) C E S A R Y R T G H H A R L C *;

- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.

37. A method of using a peptide as an analogue for NTP in a therapeutic or diagnostic assay, comprising replacing NTP with the peptide in such an assay, wherein the peptide has an amino acid sequence selected from the group consisting of:

- (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
- (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (d) A R L, and
- (e) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

38. A method of using a peptide as a trap material in a diagnostic or therapeutic assay, wherein the peptide has an amino acid sequence selected from the group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)
- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)

a12
Cont.

(s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and homologs of such amino acid sequences.

39. A method of using a peptide as a trap material in a diagnostic or therapeutic assay, wherein the peptide has an amino acid sequence selected from the group consisting of: (SEQ ID NOS 4-11, respectively, in order of appearance)

- (a) L H A R L C L A N F C G R N R V;
- (b) L A R L C L A N F C G N N N V;
- (c) C A R Y R T G H H A R L M;
- (d) H H A R L P L A N F C G;
- (e) R T G H H A R L C * L A N F C;
- (f) C E S A R Y R T G H H A R L C *;
- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.

40. A method of using a peptide as a trap material in a diagnostic or therapeutic assay, wherein the peptide has an amino acid sequence selected from the group consisting of:

- (a) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 91-94)
- (c) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (d) A R L, and
- (e) A R L C; (SEQ ID NO: 12)

wherein the peptide comprises at least one and up to 25 additional amino acids flanking either the 3' or 5' end of the peptide.

41. A method of isolating immunoglobulins from a sample using a peptide comprising:

- (1) contacting a sample comprising immunoglobulins with at least two peptides to allow for immunoglobulin/ peptide interaction; and
- (2) isolating the resulting peptide/immunoglobulin conjugates, wherein the peptide has an amino acid sequence selected from the

group consisting of:

- (a) H H A R L; (portion of SEQ ID NO: 2, residues 291-295)
- (b) H A R L; (portion of SEQ ID NO: 2, residues 292-295)
- (c) H A R L I; (portion of SEQ ID NO: 2, residues 292-296)
- (d) H A R L I L; (portion of SEQ ID NO: 2, residues 46-51)

- (e) H H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (f) A R L I L; (portion of SEQ ID NO: 2, residues 47-51)
- (g) H H A R L I F; (portion of SEQ ID NO: 2, residues 291-297)
- (h) T H A R L I L; (portion of SEQ ID NO: 2, residues 45-51)
- (i) A R L I; (portion of SEQ ID NO: 2, residues 47-50)
- (j) A R L;
- (k) H A R L C L; (portion of SEQ ID NO: 2, residues 91-96)
- (l) A R L C L; (portion of SEQ ID NO: 2, residues 92-96)
- (m) A R C L; (SEQ ID NO: 12)
- (n) M F A R L I L; (portion of SEQ ID NO: 2, residues 263-269)
- (o) F A R L I L; (portion of SEQ ID NO: 2, residues 264-269)
- (p) F A R L I; (portion of SEQ ID NO: 2, residues 264-268)
- (q) F A R L; (portion of SEQ ID NO: 2, residues 264-267)
- (r) H A R L I F; (portion of SEQ ID NO: 2, residues 292-297)
- (s) A R L I F; (portion of SEQ ID NO: 2, residues 293-297) and

homologs of such amino acid sequences.

45. A method of isolating immunoglobulins from a sample using a peptide comprising:

- (1) contacting a sample comprising immunoglobulins with at least two peptides to allow for immunoglobulin/peptide interaction; and
- (2) isolating the resulting peptide/immunoglobulin conjugates, wherein the peptide has an amino acid sequence selected from the group consisting of:

(SEQ ID NOS 4-11, respectively, in order of appearance)

- (a) L H A R L C L A N F C G R N R V;
- (b) L A R L C L A N F C G N N N V;
- (c) C A R Y R T G H H A R L M;
- (d) H H A R L P L A N F C G;
- (e) R T G H H A R L C * L A N F C;
- (f) C E S A R Y R T G H H A R L C *;
- (g) D N T H H A R L I L;
- (h) S H H A R L I L; and homologs thereof.